REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 1 and 5-24 are pending in this application. Claims 1, 5-6, 9, 11, 13, 17-18, 21-23 are amended. Claim 2-4 are cancelled. Claim 25 is new. Claims 1 and 25 are independent claims.

Applicants note with appreciation the Examiner's acknowledgement that certified copies of all priority documents have been received by the U.S.P.T.O. Action, summary at 12.

Drawings

Applicants note that the present action does not indicate that the drawings have been accepted by the Examiner. **Applicants respectfully request that the Examiner's next communication include an indication as to the acceptability of the filed drawings** or as to any perceived deficiencies so that Applicants may have a full and fair opportunity to submit appropriate amendments and/or corrections to the drawings.

Allowable Subject Matter

Applicants acknowledge with appreciation the Examiner's indication that claims 3-5, 12-15 and 21 include allowable subject matter.

Claim Amendments

Claim 1 is amended to include allowable subject matter, based upon that originally present in claims 2 and 3. Claims 17 and 18 are amended to include the language "computer

readable medium." Additional non-narrowing amendments to the claims are made to place the claims in better U.S. form and not for any reason related to patentability.

Rejections under 35 U.S.C. § 102

Claims 1-2, 6-11, 16-20 and 22-24 are rejected under 35 U.S.C. § 102(b) as being anticipated by HSU et al. (A Constraint-based Manipulator Toolset for Editing 3D Objects). To expedite prosecution, Applicants respectfully note that independent claim 1 is amended to include the allowable subject matter, as indicated by the Examiner, of claim 3 and intervening claim 2.

In particular, amended claim 1 recites *inter alia* "wherein a user determines repositioning for one of the polyhedron corners for the computer, wherein the computer then redetermines those polyhedron edges and polyhedron surfaces which contain the repositioned polyhedron corner in order to determine the selected part, **wherein at least one of the polyhedron surfaces which contain the polyhedron corner to be repositioned is in the form of a polygon with more than three polyhedron corners, and wherein the at least one polyhedron surface is replaced by the computer by polyhedron surfaces which are in the form of triangles, each containing one polyhedron edge which is not bounded by the polyhedron corner to be repositioned of the polygon as well as the repositioned polyhedron corner.**"

For at least the foregoing reasons, claim 1 is patentable. Dependent claims 6-11, 16-20 and 22-24 are patentable by virtue of their dependency on independent claim 1. Dependent claim 2 is cancelled. Applicants, therefore, respectfully request that the rejection to claims 1, 6-11, 16-20 and 22-24 under 35 U.S.C. § 102(b) be withdrawn.

Rejections under 35 U.S.C. § 101

Claims 16-18 are rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. Applicants respectfully traverse this rejection for the reasons detailed below.

Claim 16

Claim 16 is rejected because the term "control signals" is allegedly a form of energy that does not fall within any of the categories of patentable subject matter set forth in 35 U.S.C. § 101.

However, MPEP § 2106 IV.C. states that in "evaluating whether a claim meets the requirements of section 101, the claim must be **considered as a whole** to determine whether it is for a particular application of an abstract idea, natural phenomenon, or law of nature, and not for the abstract idea, natural phenomenon, or law of nature itself." Further, MPEP § 2106 IV.C.2.(2) states that "a physical transformation 'is not an invariable requirement, but merely one example of how a mathematical algorithm [or law of nature] may bring about a useful application.'" In particular, the court in State Street Bank states the following:

> Since § 101 expressly includes processes as a category of inventions which may be patented and § 100(b) further defines the word "process" as meaning "process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material," it follows that it is no ground for holding a claim is directed to nonstatutory subject matter to say it includes or is directed to an algorithm...The question of whether a claim encompasses statutory subject matter **should not focus on which of the four categories of subject matter a claim is directed** to --process, machine, manufacture, or composition of matter-- but rather on the essential characteristics of the subject matter, in particular, its **practical utility**. [Emphasis added]

State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1374-1375 (Fed. Cir. 1998). *See also* Arrhythmia Research Tech. Inc. v. Corazonix Corp., 958 F.2d 1053 (Fed. Cir. 1992) (holding transformation of heart signals into a mathematical algorithm statutory); State

Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368 (holding the transformation of data to produce a final share price a practical application of a mathematical algorithm because it produces "a useful, concrete and tangible result").

The language "a **storage medium** in which machine-legible digital control signals are **stored**, which **interact with a computer** in such a way that, when they are executed by the computer they result in a selection method," as recited in claim 16 clearly denotes a practical, useful application. Claim 16, as a whole, relates to a computer-aided selection method for a part of a volume. Also, as an example, Applicants' specification at Para. [0020] discloses that the "control program 7" corresponds to the "control signals," upon the basis of which "the computer 1 carries out a selection method for a part of the volume."

Further, "control signals" are not simply a form of energy but may correspond to a physical system or device. The language of claim 16 states that the "control signals are stored" in a "storage medium." Moreover, Applicants' specification states at Para. [0020] that the control program 7, to which the controls signals correlate, "is stored in a storage medium 8, for example a CD ROM or a floppy disc."

As claim 16 recites subject matter used and relied upon in practical real world situations and involves physical transmission from devices such as a CD ROM or a floppy disc, claim 16 recites statutory subject matter under 35 U.S.C. § 101. Applicants, therefore, respectfully request that the rejection to claim 16 under 35 U.S.C. § 101 be withdrawn.

Claims 17-18

The Examiner rejects claims 17-18 because the term "computer program" allegedly does not denote a physical thing and therefore is not statutory under 35 U.S.C. § 101. However, MPEP 2106.01(I) recites the following:

...a claimed **computer-readable medium** encoded with a **computer program** is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus **statutory**. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035...The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. [Emphasis added]

As amended claims 17 and 18 both recite *inter alia*, a "**computer-readable medium**" either storing or having a "**computer program**," claims 17 and 18 are both statutory under 35 U.S.C. § 101. Applicants, therefore, respectfully request that the rejection to claims 17-18 under 35 U.S.C. § 101 be withdrawn.

Rejections under 35 U.S.C. § 112

Claims 16-19 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse this rejection for the reasons detailed below.

With respect to claim 16, the Examiner alleges that Applicants' disclosure does not teach a storage of signals. However, as an example, Para. [0020] of Applicants' disclosure states that "control signals" correspond to the "control program 7" and that the "control program 7 is **stored in a storage medium 8, for example a CD ROM or a floppy disc**." Therefore, Applicants' disclosure teaches a storage of signals, and claim 16 complies with the written description requirement of 35 U.S.C. § 112, first paragraph.

The Examiner also alleges that Applicants' disclosure fails to teach "a program without a system to perform the method" and "how the system is programmed." The Examiner does not relate the above language to any specific claims. Applicants will therefore assume the Examiner is referring to claims 17-19. Amended claim 17 recites *inter alia*, a "**computer program product** ...stored in a **computer readable medium**...carrying out a selection method...executed

by a computer. Similarly, amended claim 18 recites *inter alia*, a "**computer program embedded in a computer readable medium**...carrying out a selection method...executed by a computer." Likewise, claim 19 recites *inter alia*, a "**computer** which is **programmed** to carry out a selection method."

For example, Para. [0054] of Applicant's disclosure states that the "**program may be stored on a computer readable media** and is adapted to perform any one of the aforementioned methods when **run on a computer device** (a device including a processor)." Further, Applicants' disclosure also states that the "storage medium or **computer readable medium**, is adapted to store information and is adapted to interact with a data processing facility or **computer device** to perform the method." In addition, Para. [0053] of Applicants' disclosure states that "methods may be embodied in the form of a **system** or **device**." Moreover, Para. [0020] of Applicants' disclosure states that "on the basis of the **programming** with the control program 7, the **computer** 1 carries out a selection method for a part of the volume," and that the "central processor unit 2 is **programmed** with a digital control program 7 (computer program 7)."

In view of the above example support provided in Applicants' disclosure, claims 16-19 clearly comply with the written description requirement of 35 U.S.C. § 112, first paragraph. As such, Applicants respectfully submit that the above disclosures would enable a person having ordinary skill to practice the claimed invention. Applicants, therefore, respectfully request that the rejection to claims 16-19 be withdrawn.

New Claim

Applicants respectfully submit that new claim 25 is patentable for reasons somewhat similar to those discussed above with respect to amended claim 1, noting that each claim should

be interpreted separately, based solely upon its own limitations. Specifically, new independent claim 25 includes the allowable subject matter of original claim 3, including intervening original claim 2 and original base claim 1. Thus, new claim 25 is believed to be allowable for at least somewhat similar reasons to amended claim 1.

CONCLUSION

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.
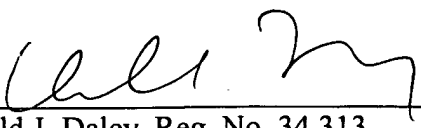
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By _____
Donald J. Daley, Reg. No. 34,313
P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

DJD/NKP:bmd